

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A low-height ~~dual or multiband~~ antenna disposed ~~comprising: a) — the dual or multiband antenna is arranged or can be positioned on a metallic base surface or base plate, the antenna comprising~~
- ~~b) — the dual or multiband antenna has at least two~~ first and second ~~substantially flat antenna elements for operation in two respectively operating on first and second frequency bands that are which are offset with respect to one another, e) — the two~~ first and second flat antenna elements ~~are being aligned to be substantially parallel, or at least approximately parallel, to one another,~~
- ~~one of d) — the first and second antenna elements being disposed closer to the base surface than the other of the first and second antenna elements, the first and second antenna elements having different sizessize of the at least two flat antenna elements decreases from that flat antenna element which is closest to the base surface to that flat antenna element which is furthest away from the base surface or base plate,~~
- ~~e) — the first flat antenna element is in each casebeing connecteddimensioned to the flat antenna element for transmission in a higher-first frequency band range, and the second flat antenna element is intendedbeing dimensioned for transmission in a second frequency band range which is lower than thissaid first frequency band range,~~
- ~~f) — the flat antenna elements have at least one short circuit provided between said at least first and second flat antenna elementson one face, such that one the first flat antenna element for transmission in a higher frequency band is being short-circuited~~

via the short circuit to the second flat antenna element ~~for transmission in a lower frequency band than this~~, and the second flat antenna element ~~for transmission in the lowest frequency band range is~~ being connected ~~or can be connected~~ via a short circuit ~~(ha) to the metallic base surface or base plate,~~

including the following further features:

g) — the ~~dual or multiband antenna is~~ being in the formed as of an integral stamped and bent metal part,

h) — the multiband antenna ~~has~~ having, as an integral component, at least ~~two~~ said first and second flat antenna elements and the short circuit ~~which is provided between two~~ said at least first and second flat antenna elements,

i) — at least one of the first and second flat antenna ~~element elements~~ for transmission in the lowest frequency band and/or for transmission in a frequency band which is lower than an upper frequency band ~~has or have~~ having adjacent to its or ~~there to~~, plural antenna element surface antenna element vanes which are electrically connected to the associated antenna element surfaces, ~~with the respective first flat antenna element for transmission in a frequency band higher than this coming to rest~~ being disposed between these said plural antenna element vanes in a plan view of the antenna,

j) — the first and second flat antenna element ~~for transmission in a higher frequency band is~~ being arranged ~~on the same plane as to be substantially coplanar;~~ and

~~the flat antenna elements for transmission in a frequency band lower than this, or is arranged with a lateral offset with respect to it on a plane which runs parallel or at least approximately parallel to it, and~~

~~k) — an integrally connected feed line which runs from underneath to the a lower face of the flat antenna element arranged at the top is likewise in the form of a stamped and bent part, which is integrally connected to the remaining parts of the antenna formed in this way coupled to said first and second flat antenna elements.~~

2. (currently amended) The antenna as claimed in claim 1, wherein the electrical short circuit ~~(jib)~~ which connects the adjacent first and second flat antenna elements is connected to the two flat antenna elements via two opposed bending edges ~~in opposite senses.~~

3. (currently amended) The antenna as claimed in claim 1, wherein the second flat antenna element which is arranged at the bottom beneath the first antenna element and is provided with a short circuit ~~(ha)~~ which forms a part of the antenna and is connected via a bending line to the antenna element surfaces thereof ~~of the flat antenna element.~~

4. (currently amended) The antenna as claimed in claim 1, wherein the second flat antenna element has a recess ~~which is in the form of a slot is incorporated in the flat antenna element arranged at the top, to be precise thereby~~ forming a feed line, which is curved downward over a bending line, ~~essentially~~ substantially at right angles to the plane of ~~the~~ the second flat antenna element.

5. (currently amended) The antenna as claimed in claim 1, wherein ~~the end edges of the antenna vanes~~ have end edges that run at right angles to ~~the longitudinal edges of the antenna vanes thereof.~~

6. (currently amended) The antenna as claimed in claim 1, wherein the ~~end edges of the antenna vanes~~ have end edges that are aligned such that they converge from the outer edges toward the center ~~or diverge outwards from the outer edges.~~

7. (currently amended) The antenna as claimed in claim 1, wherein ~~those side edges which point outward of the antenna vanes (203b)~~ have outwardly pointing side edges of the antenna elements for higher frequencies run from their face which is provided with a short circuit such that they converge toward their free end ~~or diverge outwards.~~

8. (currently amended) The antenna as claimed in claim 1, wherein ~~those stamped edges which point inward of the antenna vanes~~ have stamped, inwardly pointing edges of the antenna elements which are provided for the lower transmission ranges run from their short-circuit face such that they converge toward their free end ~~or diverge outward.~~

9. (currently amended) The antenna as claimed in claim 1, wherein ~~the said at least one~~ short circuits ~~(have~~ has a rectangular shape and ~~preferably extends~~ over the entire width of ~~the an~~ associated antenna element.

10. (previously presented) The antenna as claimed in claim 1, wherein the at least one short circuits ~~are~~ is shorter than the widths of the first and second antenna elements.

11. (currently amended) The antenna as claimed in claim 10, wherein the short circuits have a triangular ~~or trapezoidal~~ shape.

12. (currently amended) The antenna as claimed in claim 1, wherein the antenna vanes ~~of the flat antenna elements~~ are arranged at different height levels, with ~~in each case one~~ the first flat antenna element for transmission in a higher frequency band range being arranged above ~~one for transmission in a frequency band range which is lower than this~~ the second antenna element.

13. (currently amended) The antenna as claimed in claim 1, wherein the at least ~~two~~ first and second flat antenna elements are arranged with their antenna vanes at the same height level.

14. (currently amended) The antenna as claimed in claim 1, wherein the antenna element vanes are ~~preferably~~ provided on their boundary edge which points outward with antenna vane sections which are preferably aligned such that they point downward.

15. (currently amended) The antenna as claimed in claim 1, wherein the antenna ~~is in the form of~~ comprises a triband antenna and ~~, cascaded with respect to it,~~ has further comprises a third, cascaded flat antenna element ~~which has at least a similar shape to that of the other two~~ shaped like the first and second flat antenna elements ~~and that is matched for transmission in the highest~~ a higher frequency band range higher than said second band.

16. (new) An integrally formed multiband antenna comprising:
a conductive base;

a first substantially planar antenna element for operation at a first frequency band;

a second substantially planar antenna element for operation at a second frequency band different from the first frequency band, the second antenna element being substantially parallelly aligned with said first antenna element;

a first short-circuit that short-circuits a portion of said first antenna element to a portion of said second antenna element;

a second short-circuit that short-circuits a portion of said second antenna element to said conductive base;

at least first and second surface antenna element vanes electrically connected to said antenna element surfaces, at least one of said first and second antenna elements being disposed between said first and second vanes; and

an integral feed line coupled to said first and second antenna elements,

wherein at least said conductive base, first antenna element, and second antenna element are formed by cutting and bending a common sheet of conductive material.